

Product datasheet for **RR210481**

Arntl (NM_024362) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Arntl (NM_024362) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Arntl
Synonyms:	Bmal1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RR210481 representing NM_024362
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGGACCAGAGAATGGACATTTCTCCACAATCAGTGACTTCATGTCTCCGGGCCCCACCGACCTGC
 TCTCCGGTTCCTTGAGCACAGTGGTGTGGACTGCAACCGCAAGAGGAAAGGCAGTGCCACTGACTACCA
 AGAAAGTATGGACACAGACAAAGATGACCTCATGGAAGTTAGAATATGCAGAACCAAGGAAGGATC
 AAAAATGCAAGGGAGGCCACAGTCAGATTGAAAAGAGGCGTCGGGACAAAATGAACAGTTTTATTGACG
 AATTGGCTTCTTTGGTACCAACATGCAATGCGATGTCCCGAAGTTAGATAAACTCACCGTGCTCAGGAT
 GGCTGTTCCAGCACATGAAAACATTGAGAGGTGCCACCAACCCATACACAGAAGCAAACACTACAAGCCAACA
 TTTCTATCCGATACGAACTGAAACACCTAATTCTCAGGGCAGCAGATGGATTTTTGTTTGTGCTAGGAT
 GTGACCGAGGGAAGATCCTCTTTGTCTCGAATCTGTCTTCAAGATCCTCAATTATAGCCAGAATGACCT
 TATTGGCCAGAGTTTGTTCGACTACCTGCATCCAAAAGATATTGCCAAAGTTAAGGAACAGCTATCTTCC
 TCGGACACTGCACCTCGGAGCGACTCATCGATGCGAAGACTGGACTTCCGGTAAAACGGATATAACCC
 CTGGGCCCTCCCGATTGTGCTCTGGAGCTCGGCGCTCTTCTTCTGTAGGATGAAGTGCAACAGGCTTC
 AGTAAAGGTGGAAGATAAGGACTTCGCCTCCACCTGTTCAAAGAAAAAGCAGATCGAAAGAGCTTCTGC
 ACAATCCACAGCACAGGCTACTTGAAAAGCTGGCCACCCACAAAGATGGGGCTGGACGAAGACAGTGAAC
 CAGACAATGAGGGCTGCAATCTGAGTGCCTCGTTGCAATCGGGCGACTGCACACTCACACATGGTTCCACA
 GCCAGTGAACGGGAAAATACGGGTGAAGTCTATGGAGTATGTGTCTCGACATGCAATAGATGGGAAATTT
 GTTTTTGTAGATCAGAGGGCGACGGCTATTTTGGCATATCTACCACAGGAACTTCTAGGTACATCGTGTT
 ATGAGTATTTTTCATCAAGATGATATAGGACACCTTGCGGAATGCACAGGCAAGTTTTACAGACAAGAGA
 AAAGATCACGACTAATTGCTATAAGTTTAAAGATCAAAGATGGTTCCTTTATCACACTACGAAGTCGATGG
 TTCAGTTTCATGAACCCGTGGACCAAGGAAGTAGAATACATTGTCTCAACCAACACTGTTGTTTTAGCCA
 ATGTCCTGGAAGGCGGGACCCAACTTCCCACAGCTCACAGCATCCCCCACAGCATGGACAGCATGCT
 GCCCTCTGGAGAAGGTGGCCAAAGAGGACTCATCCACTGTTCCAGGCATTCCAGGGGAAACCAGAGCT
 GGAGCAGGAAAAATAGGTGCAATGATTGCCAGGAAATCATGAAATCCACAGGATAAGAGGGTCATCAC
 CTTCCAGCTGTGGCTCCAGCCACTGAACATCACAAAGTACGCCTCCCCTGATGCTTCTCTCCAGGAGG
 CAAGAAGATTCTAAATGGAGGACTCCAGACATTCCTCCGCTGGCTACTACCAGGCGAGGCTCAGGAG
 ACCCCAGGCTATCCCTACTCTGATAGTTGCTATTCTTGGTGAGAACCCCCACATAGGCATCGACATGA
 TAGACAACGACCAAGGATCAAGCAGCCCAAGTAAAGCAGGAGGCAATGGCTGTATCATGAGCCTCTT
 GGAAGCAGATGCGGGGCTGGGTGGTCCCGTTGACTTTAGTGACTTGCCATGGCCACTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR210481 representing NM_024362
 Red=Cloning site Green=Tags(s)

MADQRMDISSTISDFMSPGPTDLLSGSLSTSGVDCNRKRKGSATDYQESMDTDKDDPHGRLEYAEHQGRI
 KNAREAHSQIEKRRRDKMNSFIDELASLVPTCNAMSRKLDKLTVLRMAVQHMKTLRGATNPYTEANYKPT
 FLSDELKHLILRAADGFLFVVGCDRGKILFVSESVFKILNYSQNDLIGQSLFDYLPKDIKVKQLSS
 SDTAPRERLIDAKTGLPVKTDITPGPSRLCSGARRSFFCRMKCNRPVSVKVEDKDFASTCSKKKADRKSFC
 TIHSTGYLKSWPPTKMGLDEDSEPDNEGCNLSCLVAIGRLHSHMVPQPVNGEIRVKSMEYVSRHAIDGKF
 VFVDQRATAILAYLPQELLGTSCEYFHHQDDIGHLAECHRQVLQTRKITTNCYKFKIKDGSFITLRSRW
 FFSFMPWTKEVEYIVSTNTVVLANVLEGGDPTFPQLTASPHSMDSMLPSGEGGPKRTHPTVPGIPGGTRA
 GAGKIGRMIAEEIMEIHRIRGSSPSSCGSSPLNITSTPPPDASSPGGKILNNGTDPDIPSAGLLPGQAQE
 TPGYPYSDSSSILGENPHIGIDMIDNDQGSSSPSNDEAAMAVIMSLEADAGLGGPVDFSDLPWPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_024362

ORF Size: 1878 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_024362.2](#), [NP_077338.2](#)

RefSeq Size: 2991 bp

RefSeq ORF: 1881 bp

Locus ID: 29657

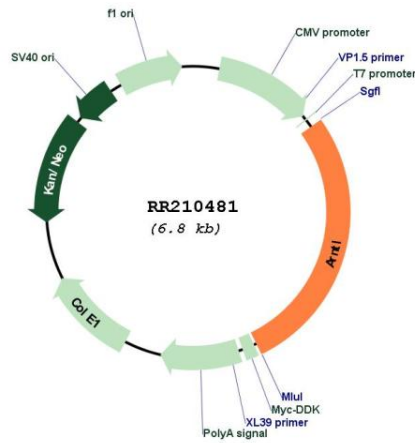
UniProt ID: [Q9EPW1](#)

Cytogenetics: 1q33

MW: 68.7 kDa

Gene Summary: The protein encoded by this gene is a basic helix-loop-helix protein that forms a heterodimer with Clock. This heterodimer binds E-box enhancer elements upstream of Period (Per1, Per2, Per3) and Cryptochrome (Cry1, Cry2) genes and activates transcription of these genes. Per and Cry proteins heterodimerize and repress their own transcription by interacting in a feedback loop with Clock/Arntl complexes. Defects in this gene have been linked to infertility, problems with gluconeogenesis and lipogenesis, and altered sleep patterns. [provided by RefSeq, Jan 2014]

Product images:



Circular map for RR210481